110TH CONGRESS
1ST SESSION

S. 2076

To amend the Federal Power Act to require the President to designate certain geographical areas as national renewable energy zones, and for other purposes.

IN THE SENATE OF THE UNITED STATES

SEPTEMBER 20, 2007

Mr. REID introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

A BILL

To amend the Federal Power Act to require the President to designate certain geographical areas as national renewable energy zones, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Clean Renewable Energy and Economic Development Act''.

SEC. 2. FINDINGS.

Congress finds that—

(1) electricity produced from renewable resources—

(A) helps to reduce emissions of greenhouse gases and other air pollutants;

(B) enhances national energy security;

(C) conserves water and finite resources; and

(D) provides substantial economic benefits, including job creation and technology development;

(2) the potential exists for a far greater percentage of electricity generation in the United States to be achieved through the use of renewable resources, as compared to the percentage of electricity generation using renewable resources in existence as of the date of enactment of this Act;

(3) many of the best potential renewable energy resources are located in rural areas far from population centers;

(4) the lack of adequate electric transmission capacity is a primary obstacle to the development of electric generation facilities fueled by renewable energy resources;

(5) the economies of many rural areas would substantially benefit from the increased development of water-efficient electric generation facilities fueled by renewable energy resources;

(6) more efficient use of existing transmission capacity, better integration of resources, and greater investments in distributed generation and off-grid solutions may increase the availability of transmission and distribution capacity for adding renewable resources and help keep ratepayer costs low;

(7) the Federal Government has not adequately invested in or implemented an integrated approach to accelerating the development, commercialization, and deployment of renewable energy technologies and renewable electricity generation, including through enhancing distributed generation or through vehicle- and transportation-sector use; and

(8) it is in the national interest for the Federal Government to implement policies that would enhance the quantity of electric transmission capacity available to take full advantage of the renewable energy resources available to generate electricity, and to more fully integrate renewable energy into the energy policies of the United States, and to address the tremendous national security and global warming challenges of the United States.

SEC. 3. NATIONAL RENEWABLE ENERGY ZONES.

(a) IN GENERAL.—Title II of the Federal Power Act (16 U.S.C. 824 et seq.) is amended—

(1) by inserting before the section heading of section 201 (16 U.S.C. 824 et seq.) the following:

"Subpart A—Regulation of Electric Utility Companies";

and

(2) by adding at the end the following:

"Subpart B—National Renewable Energy Zones

"SEC. 231. DEFINITIONS.

''In this subpart:

''(1) BIOMASS.—

''(A) IN GENERAL.—The term 'biomass' means—

''(i) any lignin waste material that is segregated from other waste materials and is determined to be nonhazardous by the Administrator of the Environmental Protection Agency; and

''(ii) any solid, nonhazardous, cellulosic material that is derived from—

''(I) mill residue, precommercial thinnings, slash, brush, or nonmerchantable material;

''(II) solid wood waste materials, including a waste pallet, a crate, dunnage, manufacturing and con-

struction wood wastes, and landscape or right-of-way tree trimmings;

"(III) agriculture waste, including an orchard tree crop, a vineyard, a grain, a legume, sugar, other crop byproducts or residues, and livestock waste nutrients; or

"(IV) a plant that is grown exclusively as a fuel for the production of electricity.

"(B) INCLUSIONS.—The term 'biomass' includes animal waste that is converted to a fuel rather than directly combusted, the residue of which is converted to a biological fertilizer, oil, or activated carbon.

"(C) EXCLUSIONS.—The term 'biomass' does not include—

"(i) municipal solid waste;

"(ii) paper that is commonly recycled; or

"(iii) pressure-treated, chemically-treated, or painted wood waste.

"(2) COMMISSION.—The term 'Commission' means the Federal Energy Regulatory Commission.

''(3) DISTRIBUTED GENERATION.—The term 'distributed generation' means—

''(A) reduced electricity consumption from the electric grid because of use by a customer of renewable energy generated at a customer site; and

''(B) electricity or thermal energy production from a renewable energy resource for a customer that is not connected to an electric grid or thermal energy source pipeline.

''(4) ELECTRICITY CONSUMING AREA.—The term 'electricity consuming area' means the area within which electric energy would be consumed if new high-voltage electric transmission facilities were to be constructed to access renewable electricity in a national renewable energy zone.

''(5) ELECTRICITY FROM RENEWABLE ENERGY.—The term 'electricity from renewable energy' means—

''(A) electric energy generated from solar energy, wind, biomass, landfill gas, the ocean (including tidal, wave, current, and thermal energy), geothermal energy, or municipal solid waste; or

''(B) new hydroelectric generation capacity achieved from increased efficiency, or an addition of new capacity, at an existing hydroelectric project.

''(6) FEDERAL TRANSMITTING UTILITY.—The term 'Federal transmitting utility' means—

''(A) a Federal power marketing agency that owns or operates an electric transmission facility; and

''(B) the Tennessee Valley Authority.

''(7) FUEL CELL VEHICLE.—The term 'fuel cell vehicle' means an onroad vehicle or nonroad vehicle that uses a fuel cell (as defined in section 803 of the Spark M. Matsunaga Hydrogen Act of 2005 (42 U.S.C. 16152)).

''(8) GRID-ENABLED VEHICLE.—The term 'grid-enabled vehicle' means an electric drive vehicle or fuel cell vehicle that has the ability to communicate electronically with an electric power provider or with a localized energy storage system with respect to charging and discharging an onboard energy storage device, such as a battery.

''(9) HIGH-VOLTAGE ELECTRIC TRANSMISSION FACILITY.—The term 'high-voltage electric trans-

mission facility' means an electric transmission facility that—

"(A) is necessary for the transmission of electric power from a national renewable energy zone to an electricity-consuming area in interstate commerce; and

"(B) has a capacity in excess of 200 kilovolts.

"(10) INDIAN LAND.—The term 'Indian land' means—

"(A) any land within the limits of any Indian reservation, pueblo, or rancheria;

"(B) any land not within the limits of any Indian reservation, pueblo, or rancheria title to which was, on the date of enactment of this subpart—

"(i) held in trust by the United States for the benefit of any Indian tribe or individual; or

"(ii) held by any Indian tribe or individual subject to restriction by the United States against alienation;

"(C) any dependent Indian community; and

''(D) any land conveyed to any Alaska Native corporation under the Alaska Native Claims Settlement Act (42 U.S.C. 1601 et seq.).

''(11) NETWORK UPGRADE.—The term 'network upgrade' means an addition, modification, or upgrade to the transmission system of a transmission provider required at or beyond the point at which the generator interconnects to the transmission system of the transmission provider to accommodate the interconnection of 1 or more generation facilities to the transmission system of the transmission provider.

''(12) RENEWABLE ELECTRICITY CONNECTION FACILITY.—

''(A) IN GENERAL.—The term 'renewable electricity connection facility' means an electricity generation or transmission facility that uses renewable energy sources.

''(B) INCLUSIONS.—The term 'renewable electricity connection facility' includes inverters, substations, transformers, switching units, storage units and related facilities, and other electrical equipment necessary for the development, siting, transmission, storage, and interconnec-

tion of electricity generated from renewable energy sources.

''(13) RENEWABLE ENERGY CREDIT.—The term 'renewable energy credit' means a unique instrument representing 1 or more units of electricity generated from renewable energy that is designated by a widely-recognized certification organization approved by the Commission or the Secretary of Energy.

''(14) RENEWABLE ENERGY TRUNKLINE.—

''(A) IN GENERAL.—The term 'renewable energy trunkline' means all transmission facilities and equipment within a national renewable energy zone owned, controlled, or operated by a transmission provider that is used to deliver electricity from renewable energy to the point at which the facility connects to a high-voltage transmission facility, including any modifications, additions or upgrades to the facilities and equipment, at a voltage of 115 kilovolts or more.

''(B) EXCLUSION.—The term 'renewable energy trunkline' does not include a network upgrade.

"SEC. 232. DESIGNATION OF NATIONAL RENEWABLE ENERGY ZONES.

"(a) DESIGNATIONS.—

"(1) IN GENERAL.—Except as provided in paragraph (2), not later than 1 year after the date of enactment of this subpart, the President shall designate as a national renewable energy zone each geographical area that, as determined by the President—

"(A) has the potential to generate in excess of 1 gigawatt of electricity from renewable energy, a significant portion of which could be generated in a rural area or on Federal land within the geographical area;

"(B) has an insufficient level of electric transmission capacity to achieve the potential described in subparagraph (A); and

"(C) has the capability to contain additional renewable energy electric generating facilities that would generate electricity consumed in 1 or more electricity consuming areas if there were a sufficient level of transmission capacity.

"(2) EXCLUSIONS.—The President shall not include in any national renewable energy zone designated under paragraph (1) any Federal land that

(as of the date of enactment of this subpart) is designated as a wilderness study area, national park, national monument, national wildlife refuge, or area of critical environmental concern, if the Federal land is subject to protective management policies that are inconsistent with energy development.

''(b) RENEWABLE ENERGY REQUIREMENTS.—In making the designations required by subsection (a), the President shall take into account Federal and State requirements for utilities to incorporate renewable energy as part of the load of electric generating facilities.

''(c) CONSULTATION.—Before making any designation under subsection (a), the President shall consult with—

''(1) the Governors of affected States;

''(2) the public;

''(3) public and private electricity and transmission utilities and cooperatives;

''(4) public utilities commissions and regional electricity planning organizations;

''(5) Federal and State land management and energy and environmental agencies;

''(6) renewable energy companies;

''(7) local government officials;

''(8) renewable energy and energy efficiency interest groups;

''(9) Indian tribes; and

''(10) environmental protection and land, water, and wildlife conservation groups.

''(d) RECOMMENDATIONS.—Not sooner than 3 years after the date of enactment of this subpart, and triennially thereafter, the Secretary of Energy and the Federal transmitting utilities, in cooperation with the Director of the Bureau of Land Management, the Director of the United States Geological Survey, the Commissioner of Reclamation, the Director of the Forest Service, the Director of the United States Fish and Wildlife Service, and the Secretary of Defense, and after consultation with the Governors of the States, shall recommend to the President and Congress—

''(1) specific areas with the greatest potential for environmentally acceptable renewable energy resource development; and

''(2) any modifications of laws (including regulations) and resource management plans necessary to fully achieve that potential, including identifying improvements to permit application processes involving military and civilian agencies.

''(e) REVISION OF DESIGNATIONS.—Based on the recommendations received under subsection (d), the President may revise the designations made under subsection (a), as appropriate.

"SEC. 233. ENCOURAGING CLEAN ENERGY DEVELOPMENT IN NATIONAL RENEWABLE ENERGY ZONES.

''(a) COST RECOVERY.—The Commission shall promulgate such regulations as are necessary to ensure that a public utility transmission provider that finances a high-voltage electric transmission facility or other renewable electricity connection facility located in 2 or more States and added in a national renewable energy zone after the date of enactment of this subpart recovers all prudently incurred costs, and a reasonable return on equity, associated with the new transmission capacity.

''(b) ALTERNATIVE TRANSMISSION FINANCING MECHANISM.—

''(1) IN GENERAL.—The Commission shall permit a renewable energy trunkline built by a public utility transmission provider in a national renewable energy zone to be initially funded through a transmission charge imposed on all transmission customers of the transmission provider or, if the renewable energy trunkline is built in an area served by a regional transmission organization or independent

system operator, all of the transmission customers of the transmission operator, if the Commission finds that—

"(A) the renewable energy resources that would use the renewable energy trunkline are remote from the grid and load centers;

"(B) the renewable energy trunkline will likely result in multiple individual renewable energy electric generation projects being developed by multiple competing developers; and

"(C) the renewable energy trunkline has at least 1 project subscribed through an executed generation interconnection agreement with the transmission provider and has tangible demonstration of additional interest.

"(2) NEW ELECTRIC GENERATION PROJECTS.—As new electric generation projects are constructed and interconnected to the renewable energy trunkline, the transmission services contract holder for the generation project shall, on a prospective basis, pay a pro rata share of the facility costs of the renewable energy trunkline, thus reducing the effect on the rates of customers of the public utility transmission provider.

"(c) FEDERAL TRANSMITTING UTILITIES.—

''(1) IN GENERAL.—Not later than 1 year after the designation of a national renewable energy zone, a Federal transmitting utility that owns or operates 1 or more electric transmission facilities in a State with a national renewable energy zone shall identify specific additional high-voltage or other renewable electricity connection facilities required to substantially increase the generation of electricity from renewable energy in the national renewable energy zone.

''(2) LACK OF PRIVATE FUNDS.—If, by the date that is 3 years after the date of enactment of this subpart, no privately-funded entity has committed to financing (through self-financing or through a third-party financing arrangement with a Federal transmitting utility) to ensure the construction and operation of a high-voltage or other renewable electricity connection facility identified pursuant to paragraph (1) by a specified date, the Federal transmitting utility responsible for the identification shall finance such a transmission facility if the Federal transmitting utility has sufficient bonding authority under paragraph (3).

''(3) BONDING AUTHORITY.—

"(A) IN GENERAL.—In addition to any other authority to issue and sell bonds, notes, and other evidence of indebtedness, a Federal transmitting utility may issue and sell bonds, notes, and other evidence of indebtedness in an amount not to exceed, at any 1 time, an aggregate outstanding balance of $10,000,000,000, to finance the construction of transmission facilities identified pursuant to paragraph (1) for the principal purposes of—

"(i) increasing the generation of electricity from renewable energy; and

"(ii) conveying that electricity to an electricity consuming area.

"(B) RECOVERY OF COSTS.—A Federal transmitting utility shall recover the costs of renewable electricity connection facilities financed pursuant to paragraph (2) from entities using the transmission facilities over a period of 50 years.

"(C) NONLIABILITY OF CERTAIN CUSTOMERS.—Individuals and entities that, as of the date of enactment of this subpart, are customers of a Federal transmitting utility shall not be liable for the costs, in the form of in-

creased rates charged for electricity or transmission, of renewable electricity connection facilities constructed pursuant to this section, except to the extent the customers are treated in a manner similar to all other users of the renewable electricity connection facilities.

''(d) OPERATION OF HIGH-VOLTAGE TRANSMISSION LINES USING RENEWABLE ENERGY RESOURCES.—

''(1) PUBLIC UTILITIES FINANCING LIMITATION.—The regulations promulgated pursuant to this section shall, to the maximum extent practicable, ensure that not less than 75 percent of the capacity of any high-voltage transmission lines financed pursuant to subsection (c) is used for electricity from renewable energy.

''(2) NON-PUBLIC UTILITIES ACCESS LIMITATION.—Notwithstanding section 368 of the Energy Policy Act of 2005 (42 U.S.C. 15926), the Commission shall promulgate regulations to ensure, to the maximum extent practicable, that not less than 75 percent of the capacity of high-voltage transmission facilities sited primarily or partially on Federal land and constructed after the date of enactment of this subpart is used for electricity from renewable energy.

"SEC. 234. FEDERAL POWER MARKETING AGENCIES.

''(a) PROMOTION OF RENEWABLE ENERGY AND ENERGY EFFICIENCY.—Each Federal transmitting utility shall—

''(1) identify and take steps to promote energy conservation and renewable energy electric resource development in the regions served by the Federal transmitting utility;

''(2) use the purchasing power of the Federal transmitting utility to acquire, on behalf of the Federal Government, electricity from renewable energy and renewable energy credits in sufficient quantities to meet the requirements of section 203 of the Energy Policy Act of 2005 (42 U.S.C. 15852); and

''(3) identify opportunities to promote the development of facilities generating electricity from renewable energy on Indian land.

''(b) WIND INTEGRATION PROGRAMS.—The Bonneville Power Administration and the Western Area Power Administration shall each establish a program focusing on the improvement of the integration of wind energy into the transmission grids of those Administrations through the development of transmission products, including through the use of Federal hydropower resources, that—

''(1) take into account the intermittent nature of wind electric generation; and

''(2) do not impair electric reliability.

''(c) SOLAR INTEGRATION PROGRAM.—Each of the Federal Power Administrations and the Tennessee Valley Authority shall establish a program to carry out projects focusing on the integration of solar energy, through photovoltaic concentrating solar systems and other forms and systems, into the respective transmission grids and into remote and distributed applications in the respective service territories of the Federal Power Administrations and Tennessee Valley Authority, that—

''(1) take into account the solar energy cycle;

''(2) maximize the use of Federal land for generation or energy storage, where appropriate; and

''(3) do not impair electric reliability.

''(d) GEOTHERMAL INTEGRATION PROGRAM.—The Bonneville Power Administration and the Western Area Power Administration shall establish a joint program to carry out projects focusing on the development and integration of geothermal energy resources into the respective transmission grids of the Bonneville Power Administration and the Western Area Power Administration, as well as non-grid, distributed applications in those service territories, including projects combining geothermal energy resources with biofuels production or other industrial or commercial uses requiring process heat inputs, that—

''(1) maximize the use of Federal land for the projects and activities;

''(2) displace fossil fuel baseload generation or petroleum imports; and

''(3) improve electric reliability.

''(e) RENEWABLE ELECTRICITY AND ENERGY SECURITY PROJECTS.—

''(1) IN GENERAL.—The Federal transmitting utilities, shall, in consultation with the Commission, the Secretary, the National Association of Regulatory Utility Commissioners, and such other individuals and entities as are necessary, undertake geographically diverse projects within the respective service territories of the utilities to acquire and demonstrate grid-enabled and nongrid-enabled plug-in electric and hybrid electric vehicles and related technologies as part of their fleets of vehicles.

''(2) INCREASE IN RENEWABLE ENERGY USE.—To the maximum extent practicable, each project conducted pursuant to any of subsections (b) through (d) shall include a component to develop vehicle technology, utility systems, batteries, power electronics, or such other related devices as are able to substitute, as the main fuel source for vehicles,

transportation-sector petroleum consumption with electricity from renewable energy sources.

"SEC. 235. RELATIONSHIP TO OTHER LAWS.

"Nothing in this subpart supersedes or affects any Federal environmental, public health or public land protection, or historic preservation law, including—

"(1) the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.);

"(2) the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.); and

"(3) the National Historic Preservation Act (16 U.S.C. 470 et seq.).".

(b) TRANSMISSION COST ALLOCATION.—Section 206 of the Federal Power Act (16 U.S.C. 824e) is amended by adding at the end the following:

"(f) TRANSMISSION COST ALLOCATION.—

"(1) IN GENERAL.—Not later than 180 days after the date on which the President designates an area as a national renewable energy zone under section 232, the State utility commissions or other appropriate bodies having jurisdiction over the public utilities providing service in the national renewable energy zone or an adjacent electricity consuming area may jointly propose to the Commission a cost allocation plan for high-voltage electric transmission

facilities built by a public utility transmission provider that would serve the electricity consuming area.

''(2) APPROVAL.—The Commission may approve a plan proposed under paragraph (1) if the Commission determines that—

''(A) taking into account the users of the transmission facilities, the plan will result in rates that are just and reasonable and not unduly discriminatory or preferential; and

''(B) the plan would not unduly inhibit the development of renewable energy electric generation projects.

''(3) COST ALLOCATION.—Unless a plan is approved by the Commission under paragraph (2), the Commission shall fairly allocate the costs of new high-voltage electric transmission facilities built in the area by 1 or more public utility transmission providers (recognizing the national and regional benefits associated with increased access to electricity from renewable energy) pursuant to a rolled-in transmission charge.

''(4) FEDERAL TRANSMITTING UTILITY.—Nothing in this subsection expands, directly or indirectly,

the jurisdiction of the Commission with respect to any Federal transmitting utility.''.

(c) CONFORMING AMENDMENTS.—

(1) Section 3 of the Federal Power Act (42 U.S.C. 796) is amended by adding at the end the following:

''(30) ELECTRIC DRIVE VEHICLE.—

''(A) IN GENERAL.—The term 'electric drive vehicle' means a vehicle that uses—

''(i) an electric motor for all or part of the motive power of the vehicle; and

''(ii) off-board electricity wherever practicable.

''(B) INCLUSIONS.—The term 'electric drive vehicle' includes—

''(i) a battery electric vehicle;

''(ii) a plug-in hybrid electric vehicle; and

''(iii) a plug-in hybrid fuel cell vehicle.''.

(2) Subpart A of part II of the Federal Power Act (as redesignated by subsection (a)) is amended—

(A) in the heading of section 201, by striking ''PART'' and inserting ''SUBPART''; and

(B) by striking ''this Part'' each place it appears and inserting ''this subpart''.

○